REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application. Claims 1-11 are now present in this application, of which claim 1 is independent. Only claim 1 has been amended.

Reasons for Entry of Amendments

At the outset, it is respectfully requested that this Amendment be entered into the Official File in view of the fact that the amendments to the claims automatically place the application in condition for allowance.

This Amendment was not presented at an earlier date in view of the fact that Applicants are responding to a new rejection based on a reference cited for the first time in the Final Office Action.

Priority Under 35 U.S.C. § 119

In an earlier amendment dated July 7, 2006, Applicants requested that the Examiner acknowledged Applicants' claim for foreign priority under 35 U.S.C. § 119, and receipt of the certified priority document. Upon further review, this application is a National Stage Application based on PCT/KR2002/002256 filed on December 2, 2002.

Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1, 6, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,031,693 to VanDyke. Further, claims 1, 6, 9, and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,616,671 to Wakeman. Finally, claims 2-5, 7, and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wakeman in view of U.S. Published Application No. 2002/0185266 to Dobbs et al. ("Dobbs"). These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicants respectfully submit that independent claim 1 has been amended to recite a combination of elements in a heat exchanger of a ventilating system including "a plurality of heat exchanging plates being laminated at a predetermined interval, each of the heat exchanging plates preventing airflow therethrough", "a first heat exchange member being laminated among the heat exchanging plates, the first heat exchange member having a folded corrugated shape including a first plurality of upper bends, a first plurality of lower bends, a first plurality of wall portions connecting adjacent first upper bends and first lower bends, each first wall portion having a plurality of through holes arranged in both a longitudinal direction and a transverse direction therein, each of the first plurality of upper and lower bends extending substantially in the direction of the airflow, and the first heat exchange member being formed to increase turbulence of the outdoor air which flows while being attached on a first air path through which outdoor air passes", and "a second heat exchange member which is laminated among the heat exchanging plates crossed with the first heat exchange member, the second heat exchange member having a folded corrugated shape including a second plurality of upper bends, a second plurality of lower bends, a second plurality of wall portions connecting adjacent second upper bends and second lower bends, each second wall portion having a plurality of through holes arranged in both a longitudinal direction and a transverse direction therein, each of the second plurality of upper and lower bends extending substantially in the direction of the airflow, and the second heat exchange member being formed to increase turbulence of indoor air which flows while being attached on a second air path through which the indoor air passes." Applicants respectfully submit that this combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including VanDyke, Wakeman, and Dobbs.

VanDyke

Applicant respectfully submits that VanDyke fails to show or describe the claimed heat exchanger for a ventilator including "each of the first plurality of upper and lower bends extending substantially in the direction of the airflow" and "each of the second plurality of upper and lower bends extending substantially in the direction of the airflow."

In the jet impingement plate fin heat exchanger of VanDyke, "the heat exchanger core 1 utilizes corrugated fin stock between the spacer or separator plates 7, with the fin stock being formed in a conventional manner **with the exception** of the orifice openings 10, 11 fluid jet passing through the respective orifices or openings 10, 11 and impinging on the subsequent surfaces of the tines 8*a*, 9*a* **results in a much higher heat transfer coefficient than forced convection along the fin**." *See* col. 5, lines 61-68. In other words, the fins are perpendicular to the flow of fluids, as opposed to substantially aligned with the respective airflows as recited in independent claim 1, so that the fluids can impinge on subsequent fins.

Therefore, VanDyke fails to show or describe the claimed heat exchanger for a ventilator as set forth in independent claim 1. As such, the § 102 rejection of independent claim 1 must be withdrawn.

Wakeman

At the outset, Applicants note that Wakeman is directed to "heat exchangers of the type wherein a group of thin metal plates are assembled in face to face spaced arrangement defining thin passages therebetween for the separated flow of two fluids in heat exchange relation." *See* col. 1, lines 1-5. Therefore, Wakeman is not a heat exchanger for a ventilator as claimed.

In addition, Applicants respectfully submit that Wakeman fails to show or describe the claimed heat exchanger for a ventilator including "each of the heat exchange plates preventing airflow therethrough."

As can best be seen in Figs. 1 and 10, heat exchanger plate 1 includes a plurality of port openings 4-7 that are designed to allow fluids to flow through the heat exchange plate to adjacent gasket carrying spacer plates 8. *See* col. 2, line 48 to col. 3, line 11. According to Wakeman, in an arrangement for heating or cooling milk with water, "[t]he port openings 4, 5, 6, and 7 (indicated in Fig. 1), are selectively provided or omitted in the several heat exchange plates 1, in such arrangement with the registering ports in the spacer plates 8 as to direct the streams of milk and water upwardly, across and downwardly through their respective alternate passages between the several heat exchange plates." *See* col. 6, lines 10-17.

Clearly, in order for Wakeman's heat exchanger to work, the two fluids must be able to flow through the heat exchanger plates 1. Therefore, Wakeman does not show or describe the claimed heat exchanger for a ventilator set forth in independent claim 1. As such, the § 102 rejection of claim 1 must be withdrawn.

Dobbs

Dobbs was cited for allegedly teaching subject matter that when combined with Wakeman would fail to correct the deficiency identified above. Therefore, even if there was motivation to combine the references as suggested by the Examiner, the combination of Dobbs and Wakeman would fail to render the claimed heat exchanger of independent claim 1 obvious.

Dependent Claims 2-11

With regard to dependent claims 2-11, Applicants submit that claims 2-11 depend, either directly or indirectly, from independent claim 1, which is allowable for the reasons set forth above, and therefore claims 2-11 are allowable based on their dependence from claim 1, as well as for their additionally recited subject matter.

Reconsideration and allowance thereof are respectfully requested.

Office Action

The Office Action contains numerous characterizations of the invention, the claims, and the related art, with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Chad D. Wells, Registration No. 50,875, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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